

Listing of the Claims:

The following is a complete listing of all the claims in the application, with an indication of the status of each:

1 1 (Currently Amended). A distributed method for processing auction traffic
2 using one or more servers at a plurality of nodes in a distributed processing
3 system comprising the steps of:

4 using a computer implemented current local winner determination
5 method at each of the nodes to ~~quickly~~ identify loser bids and candidate
6 winning bids; and

7 using a computer implemented current global winner determination
8 method to determine from the candidate winning bids from each of nodes a
9 current set of winners.

1 2 (Original). The method of claim 1, wherein the auction is an open-cry
2 auction.

1 3 (Currently Amended). ~~The~~ A distributed method of claim 2 for processing
2 open-cry auction traffic using one or more servers at a plurality of nodes in a
3 distributed processing system comprising the steps of:

4 using a current local winner determination method at each of the nodes
5 to identify loser bids and candidate winning bids, wherein the current local
6 winner determination method comprises the steps of:

7 (a) receiving a new bid(v, q) at a node, where v denotes the price per
8 unit and q denotes the quantity desired;
9 (b) checking to see if the new bid ranks in the top $\lfloor N/q \rfloor$ bids, in terms
10 of price/unit bid value, amongst all the bids asking for quantity
11 q whose information is available to this process, where N is a

12 number of copies of a single item on sale and $\lfloor x \rfloor$ stands for the
13 greatest integer less than or equal to x ;
14 (c) taking the new bid along with the set of $\lfloor N/q \rfloor$ bids that have been
15 processed and determining a new set of top $\lfloor N/q \rfloor$ bids;
16 (d) determining if $\text{bid}(v,q)$ is in the top $\lfloor N/q \rfloor$ bids and, if it is not,
17 declaring it a loser bid, but if so, declaring it a candidate bid;
18 and
19 using a current global winner determination method to determine from
20 the candidate winning bids from each of the nodes a current set of winners.

1 4 (Original). The method of claim 3, further comprising the steps of:
2 holding the candidate bid at the node for a time, τ ; and
3 if by time τ , through an arrival of another bid, a candidate bid loses its
4 position amongst the top $\lfloor N/q \rfloor$ highest bids, declaring the bid a loser bid;
5 otherwise, declaring the bid a winner candidate and making the bid
6 accessible for further processing by the current global winner determination
7 method.

1 5 (Original). The method of claim 4, wherein the current global winner
2 determination method comprises the steps of:
3 receiving new candidate winning bid from a node $\text{bid}(v,q)$;
4 taking the candidate winning bid along with the set of all bids that
5 have been processed and determines a new set of winners;
6 determining whether the new candidate $\text{bid}(v,q)$ is a winner or a loser;
7 and
8 notifying the bidder of $\text{bid}(v,q)$ as to whether they are a winner or
9 loser.

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1 6 (Currently Amended). ~~The~~ A distributed method of claim 2 for processing
2 open-cry auction traffic using one or more servers at a plurality of nodes in a
3 distributed processing system comprising the steps of:
4 using a current local winner determination method at each of the nodes
5 to identify loser bids and candidate winning bids, wherein the current local
6 winner determination method comprises the steps of:
7 (a) receiving a new bid(v, q) at a node, where v denotes the price per
8 unit and q denotes the quantity desired;
9 (b) considering a set of bids using a set of pre-specified auction rules
10 and selecting winners for auctioning $N+x$ copies of the item on
11 sale; and
12 (c) determining whether the bid(v, q) is a candidate winner bid; and
13 using a current global winner determination method to determine from
14 the candidate winning bids from each of the nodes a current set of winners.

1 7 (Original). The method of claim 6, wherein the current global winner
2 determination method comprises the steps of:
3 receiving new candidate winning bid from a node bid(v, q);
4 taking the candidate winning bid along with the set of all bids that
5 have been processed and determines a new set of winners;
6 determining whether the new candidate bid(v, q) is a winner or a loser;
7 and
8 notifying the bidder of bid(v, q) as to whether they are a winner or
9 loser.

1 8 (Original). The method of claim 1, wherein the auction is a descending
2 auction.

1 9 (Currently Amended). ~~The~~ A distributed method of claim 8 for processing
2 descending auction traffic using one or more servers at a plurality of nodes in
3 a distributed processing system comprising the steps of:
4 using a current local winner determination method at each of the nodes
5 to identify loser bids and candidate winning bids, wherein the current local
6 winner determination method comprises the steps of:
7 (a) receiving a bid (q) for processing, where q is the quantity desired at
8 going price p ;
9 (b) determining whether the bid is in the first $\lfloor R/q \rfloor$ bids, asking for
10 quantity q at price p , where $\lfloor x \rfloor$ stands for the greatest integer
11 less than or equal to x and R is a currently remaining quantity
12 on auction;
13 (c) if the bid is in the first $\lfloor R/q \rfloor$ bids, asking for quantity q at the going
14 price p , then declaring the bid a candidate winner bid; and
15 (d) making the candidate winner bid available for further processing
16 by the current global winner determination method; and
17 using a current global winner determination method to determine from
18 the candidate winning bids from each of the nodes a current set of winners.

1 10 (Original). The method of claim 9, further comprising the steps of:
2 giving bids processed by the method a time stamp of arrival; and
3 determining whether the time stamp, if it exists on the bid, is greater
4 than or equal to the time stamp of any bid, asking for quantity q at going price
5 p , that has been processed by the method in the past.

1 11 (New). The method of claim 1, wherein bidders submit multi-item bids and
2 the bids may be indivisible.